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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
00/085,359	02/28/2002	Sukun Zhang	321.087	6609

7590 09/18/2003

B. Craig Killough
Barnwell Whaley Patterson & Helms, LLC
Suite 300
134 Meeting Street
Charleston, SC 29401

EXAMINER

GOODROW, JOHN L

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 09/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/085359

Applicant(s)

Zhang et al.

Examiner

Goodrow

Group Art Unit

175C

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-20 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-20 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2,4
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Notice of References Cited

Application No.

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Examiner

Goodrow

Group Art Unit

1756

Page 1 of 1

U.S. PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
A	5538969	9/96	Uyttendaele et al.	430	127
B	6500594	12/02	HAMANO et al.	430	109.4
C	5955233	9/99	Urashima et al.	430	109
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					

FOREIGN PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N						
O						
P						
Q						
R						
S						
T						

NON-PATENT DOCUMENTS

*	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U		
V		
W		
X		

* A copy of this reference is not being furnished with this Office action.
(See Manual of Patent Examining Procedure, Section 707.05(a).)

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

1

Complete if Known

Application Number	10/085,359
Filing Date	2/28/2002
First Named Inventor	Zhang, et al.
Group Art Unit	
Examiner Name	
Attorney Docket Number	321.087

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
16		3,853,778		Buckley, et al.	12-10-74	
16		3,967,962		O'Malley	07-06-76	
16		4,528,257		Polderman, et al.	07-09-85	
16		4,883,736		Hoffend, et al.	11-28-89	
16		4,940,644		Matsubara, et al.	07-10-90	
16		4,952,477		Fuller, et al.	08-28-90	
16		4,990,424		Van Dusen, et al.	02-05-91	
16		5,238,998		Fuller, et al.	08-24-93	
16		5,354,639		Kasuya, et al.	10-11-94	
16		5,364,722		Tanikawa, et al.	11-15-94	
16		6,337,169		Hashimoto, et al.	01-08-02	

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FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner
Signature

J Goodrow

Date
Considered

9/03

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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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U.S. PATENT DOCUMENTS

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		Number	Kind Code ² (if known)			
16		4,021,591		Cooper, et al.	05-03-97	
16		4,064,285		Mammino	12-30-77	
16		4,066,802		Clemens	01-03-78	
16		4,216,283		Reiff, et al.	08-05-80	
16		4,773,953		Hare	09-27-88	
16		5,246,518		Hale, et al.	09-21-93	
16		5,248,363		Hale, et al.	09-28-93	
16		5,302,223		Hale, et al.	04-12-94	
16		5,431,501		DeVries, et al.	07-11-95	
16		5,555,813		Hale	09-17-96	
16		5,590,600		Hale, et al.	01-07-97	
16		5,607,482		Olsen, et al.	03-04-97	
16		5,785,790		Olsen, et al.	07-28-98	
16		5,789,039		Biller, et al.	08-04-98	
16		5,978,077		Koerner, et al.	11-16-99	
16		5,981,077		Taniguchi	11-09-99	
16		5,985,503		de Beeck, et al.	11-16-99	
16		6,017,636		Tada, et al.	01-25-00	
16		6,103,042		Hatada, et al.	08-15-00	

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FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
16		DE	A 272 223		Vogt	12/78		
16		EP	A 466,503					
16		JP	A 63296982					
16		WO	90/13063			11/90		

Examiner Signature	J Goodrow	Date Considered	9/03
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Art Unit 1756

1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Uyttendaele et al. in view of Urashima et al., Hamano et al. and Hal et al. Uyttendaele et al. teaches an electrophotographic process in which a toner having two reagents is transferred and fixed by heat or heat and pressure. Applicant's attention is directed to column 4 lines 30-35 wherein is taught the toner having two reagents that react together during the fixing step. The use of a toner that reacts with heat or heat and light is further taught by Hamano et al. where low temperature is utilized in the fixing of a toner having a binder resin with a crystalline component that lowers the melting point of the resin. Urashima et al. also teaches the low temperature fixing of an electrostatic toner. Applicant's attention is directed to column 1 lines 62-69 and column 12 lines 50-65. Hal et al. teaches a heat activated electrophotographic printing process in which transfer of the developed image can be to

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-3-


Art Unit 1756

clothing or textile materials (note the Background of the Invention) in which heat is used to activate the dyes in the transfer process. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention with a reasonable expectation of success to utilize in the fixing of the electrostatic developed image reagents that react to improve the image of the transferred toner having two reactants that react in the fixing of the developed image.

J. Goodrow:cdc

(703) 308-0661

September 10, 2003


JOHN GOODROW
PRIMARY EXAMINER
ART UNIT 157